

ABSTRACT

FUEL CELL GAS SENSORS

A fuel cell gas sensor for detecting gases such as Hydrogen ( $H_2$ ) and Carbon Monoxide (CO) comprises a main body (10) in which are mounted a protection membrane (11), a working electrode (12), electrolyte (13), a counter electrode (14), a protection membrane (15) and respective contacts (16). A catalyst disk (17a) or a very low impedance fuel cell (17b) is placed between the counter electrode (14) and the protection membrane (15). The membrane (15) slows down the flux of gases onto the counter electrode (14). The catalyst disk (17a) eliminates chemically while the fuel cell (17b) eliminates electrochemically the gases to be detected that permeate through the protection membrane (15). This arrangement makes it possible to detect the gases in places where the gases to be detected are able to reach both the working electrode (12) and the counter electrode (14).